

XXX. *The Culicidae of Australia.*—I. By FRANK H. TAYLOR, F.E.S., Entomologist to the Australian Institute of Tropical Medicine.

[Read December 3rd, 1913.]

PLATES XLI—XLIV.

THE present paper contains descriptions of three new genera and seventeen new species besides new records for several previously described forms.

The new species are distributed in the following genera : *Calomyia* (one), *Grabhamia* (one), *Culicada* (six), *Leucomyia* (two), *Culicelsa* (two), *Caenocephalus* (one), *Chrysoconops* (one), *Dixomyia* (one) and *Uranotaenia* (two).

The female of *Anisocheleomyia nivipes*, Theob., is also recorded for the first time.

The type specimens have been deposited in the Institute collection.

LIST OF SPECIES DEALT WITH.

- Nyssorhynchus annulipes*, Walker.  
*Calomyia priesleyi*, gen. et sp. nov.  
*Stegomyia tasmaniensis*, Strickland.  
*Scutoomyia notoscripta*, Skuse.  
*Grabhamia flindersi*, n. sp.  
*Culicada demansis*, Strickland.  
 „ *vandema*, Strickland.  
 „ *tasmaniensis*, Strickland.  
 „ *nigra*, n. sp.  
 „ *annulata*, n. sp.  
 „ *clelandi*, n. sp.  
 „ *squamosa*, n. sp.  
 „ *cumpstoni*, n. sp.  
 „ *annulipes*, n. sp.  
*Leucomyia annulata*, n. sp.  
 „ *annulirostris*, n. sp.  
*Culicelsa simplex*, n. sp.  
 „ *fuscus*, n. sp.  
*Culex occidentalis*, Skuse.  
*Caenocephalus concolor*, gen. et sp. nov.

*Chrysoconops littleri*, n. sp.

*Dixomyia elegans*, gen. et sp. nov.

*Uranotaenia propria*, n. sp.

„ *albescens*, n. sp.

*Anisocheleomyia nivipes*, Theobald.

*Nyssorhynchus annulipes*, Walker.

Theobald, Mon. Culicid., I, p. 164 (1901); III, p. 104, (1903).

*Additional Locality*. TASMANIA, Launceston (*F. M. Littler*).

CALOMYIA, n. g.

Head clothed with narrow-curved and upright forked scales with spindle-shaped ones in the centre and bordering the eyes, and flat ones on the sides; palpi slightly less than one-third the length of the proboscis, four jointed, the third joint very long, apical joint minute and nipple-shaped; proboscis long.

Thorax with narrow-curved, broad flat and spindle-shaped scales; scutellum with broad flat scales. Wings with linear lateral scales and broad median flat ones; fork-cells long.

The above genus is very distinct; systematically it would come between *Quasistegomyia* and *Kingia*.

Male unknown.

*Calomyia priestleyi*, n. sp.

Head clothed with narrow-curved, upright forked, spindle-shaped and flat lateral scales. Palpi four jointed, black scaled. Thorax clothed with bronzy narrow-curved and pale spindle-shaped scales, and two prominent patches of broad flat scales; scutellum flat scaled. Abdomen with basal banding and median basal spots with lateral spots. Legs basally banded.

♀. Head black, clothed with white narrow-curved and dense black upright forked scales with a median line of white spindle-shaped ones, and a narrow border of flat white spindle-shaped ones round the eyes, a small patch on either side of the flat pale ones, border bristles round the eyes long and black with three overhanging the eyes from the centre; palpi about one-third the length of the proboscis, black clothed with black iridescent scales, four jointed, the second about half the length of the third which is very long, the fourth nipple-shaped and minute; proboscis black scaled, long, comparatively slender, nearly as long as the abdomen; antennae 14 jointed, dark brown, clothed with white pubescence, verticillate

hairs black, the base of the second segment yellow, basal lobes black clothed with blackish hairs on their inner surfaces; clypeus black; eyes purplish black.

Thorax black, clothed with bronzy narrow-curved scales with two very prominent patches of pure white broad flat scales on the sides at the base of the middle third, and pale spindle-shaped ones in the middle; posterior third with two lateral rows of cream-coloured spindle-shaped scales and numerous broad white flat ones with a small prealar patch of white flat ones, a lateral row of black bristles on each side extending the whole length of the thorax, border bristles black, prothoracic lobes prominent clothed with white flat scales and black bristles; scutellum black, densely clothed with broad white flat scales, border bristles black, eight to the mid lobe; pleurae black, clothed with broad white flat scales and mixed yellow and black hairs.

Abdomen black, clothed with black iridescent scales, first segment clothed with white scales and pale creamy yellow hairs, second segment with white basal banding which expands into broad lateral patches, segments three to seven with basal white spots those on segments six and seven forming comparatively large triangles, apical segment unspotted, segments three to six with basal lateral patches, seventh with broad lateral stripe the full length of the segment; posterior border bristles black, lateral border bristles black and fairly dense on the fifth to seventh segments; venter black, clothed with pale scales, segments six and seven with white scales and numerous black hairs.

Legs clothed with black iridescent scales; the basal half of the hind femora pale creamy beneath and with a creamy white apical patch above; first tarsals of fore and mid legs with very broad creamy white bands, not quite basal, second tarsals of fore legs with an almost basal creamy white spot, of mid legs with creamy white banding, almost basal, remaining tarsi unbanded; hind legs with the first three tarsals with creamy white banding, not quite basal on the first and basal on the second and third, fourth and fifth unbanded; ungues of fore and mid legs equal, uniserrate, of hind legs equal and simple.

Wings with the costa black scaled; the base of sub-costal and first longitudinal veins clothed with black iridescent flat scales; veins clothed with brown lateral linear and median fairly broad scales; fringe dark brown; first fork-cell longer and considerably narrower than the second, the base of the latter nearer the base of the wing; stem of the first fork-cell two-thirds the length of the cell, stem of the second about two-thirds the length of its cell, anterior basal cross-vein slightly longer than and a little more than twice its own length

from the anterior cross-vein; the sub-costal vein terminates a short distance in front of the supernumerary cross-vein. Halteres creamy yellow.

Length 9 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley*).

*Date of Capture.* 27/3/1913.

*Observations.* Described from a single specimen. It is a very handsome mosquito, the iridescent scales being very conspicuous. It is isolated from other Australian species by its head and thoracic ornamentation; the leg banding is also distinctive. We have much pleasure in dedicating this handsome species to its discoverer.

*Stegomyia tasmaniensis*, Strickland.

(Pl. XLI, figs. 1 and 2.)

*Entomologist*, xliv, No. 578, p. 249 (1911).

*Additional Localities.* TASMANIA, Launceston, Mount Arthur (*F. M. Littler*).

*Scutomyia notoscripta*, Skuse.

*Proc. Linn. Soc., N.S.W.*, III, 2nd series, p. 1738 (1888).

*Additional Localities.* TASMANIA, Underwood, Launceston (*F. M. Littler*).

*Grabhamia flindersi*, n. sp.

Thorax clothed with deep bronzy narrow-curved scales. Abdomen clothed with brown scales. Legs black, unbanded.

♀. Head black, clothed with dark brown narrow-curved scales with numerous white and black upright forked ones, the sides with a small patch of mixed whitish and brown flat ones; eyes black and silvery bordered with long blackish bristles; palpi black scaled with a few scattered black bristles; proboscis black mottled with black and white scales; antennae dark brown, second and third segments paler, basal lobe blackish brown, verticillate hairs dark brown, short, pile grey; clypeus black.

Thorax dark brown, clothed with deep bronzy narrow-curved scales, prealar bristles dense, blackish brown; scutellum dark brown, clothed with short white narrow-curved scales, mid lobe with six black border bristles, lateral lobes with five; metanotum reddish brown, prothoracic lobes with mixed brown and white narrow-curved scales; pleurae brown, densely clothed with white flat scales.

Abdomen brown, clothed with brown scales with narrow apical

white banding and conspicuous white apical lateral spots; venter white scaled with scattered brown ones.

Wings with the veins clothed with mixed white and brown scales, costa black; fork-cells short, the first slightly longer but narrower than the second, the base of the latter nearer the base of the wing than that of the former; stem of the first fork-cell half the length of the cell, stem of the second about two-thirds the length of its cell; anterior basal cross-vein slightly longer than the anterior cross-vein and about one-third its length distant from it; fringe brown. Halteres with the stalk and knob creamy white.

Legs with the femora densely mottled white and brown scales, with an apical white spot, the apical third of the fore femora with numerous and moderately long brown spines; tibiae and tarsi covered with blackish brown scales, the former and the first two tarsals mottled with white scales; unguis equal each with a small tooth.

Length 8 mm.

*Habitat.* BASS STRAITS, Flinders Island (*Dr. J. B. Cleland*).

*Date of Capture.* 20/11/1912.

*Observations.* Described from two specimens taken by *Dr. Cleland*. It would seem in some respects, to be closely related to *G. australis*, *Strickland*.

*Culicada demansis*, *Strickland*.

*Entomologist*, xliv, No. 577, p. 202 (1911).

*Strickland* states in his description that he was unable to state the character of the unguis from his single specimen. They are all equal and uniserrate.

*Additional Locality.* TASMANIA, Mount Arthur (*F. M. Littler*).

*Culicada vandema*, *Strickland*.

*Entomologist*, xliv, No. 577, p. 202 (1911).

*Additional Localities.* N.S. WALES, Bulli (*Dr. J. B. Cleland*); TASMANIA, Mount Arthur (*F. M. Littler*).

*Culicada tasmaniensis*, *Strickland*.

(Pl. XLI, figs. 3 and 4.)

*Entomologist*, xliv, No. 576, p. 181 (1911).

*Additional Locality.* TASMANIA, Low Head (*F. M. Littler*).

*Culicada nigra*, n. sp.

Head clothed with pale scales, thorax dark brown. Abdomen with white basal banding. Legs black, tarsi with white basal banding.

♂. Head black, clothed with creamy narrow-curved and light brown upright forked scales with white flat lateral ones, border bristles black with creamy yellow ones overhanging the eyes from the centre; eyes purplish black; clypeus black; proboscis black; palpi black with white basal banding on all the segments, apex of the first, the second and apical segments clothed beneath with dark brown hairs, those on the last two segments pale at the base; antennae dark brown, basal lobes black, plumes brown, penultimate and apical segments long and brown, verticillate hairs at the base of the apical segments long and black.

Thorax blackish brown, light chestnut brown in front of the scutellum, clothed with creamy white narrow-curved scales remainder with creamy ones, lateral border bristles black; scutellum brown, posterior half paler, clothed with creamy white narrow-curved scales, border bristles light brown; metanotum chestnut brown, prothoracic lobes prominent, dark brown, clothed with white flat scales and brown bristles; pleurae brown, densely clothed with white flat scales and a few pale yellowish bristles.

Abdomen clothed with black scales with white basal banding, first segment clothed with white scales and dense pale hairs, eighth segment mottled with white scales; genitalia mottled with white scales; posterior border bristles pale yellow, lateral ones long, pale yellow; venter white scaled.

Legs black; femora, tibiae and first tarsals pale beneath; knee spot pale; tarsals one to four of fore and mid legs with white basal banding, all tarsi of hind legs with white basal banding; ungues of fore and mid legs unequal, the larger with two teeth, the smaller with one, hind equal uniserrate.

Wings with the costa clothed with black scales, remaining veins clothed with dark brown scales; anterior basal cross-vein as long as the anterior cross-vein and half its own length distant from it; first fork-cell longer and narrower than the second, their bases level, stem of the first fork-cell about three-quarters the length of the cell, stem of the second as long as the cell; fringe brown. Halteres with pale stems and dusky knobs.

Length 7-7.5 mm.

*Habitat.* TASMANIA, Launceston (*F. M. Littler*).

*Observations.* Described from two specimens. It comes nearest to *C. demansis*, Strickland, from which it can be

separated by the different clothing of the posterior portion of the thorax and scutellum and the much less prominent leg banding.

*Culicada annulata*, n. sp.

(Pl. XLI, fig. 5.)

Head black. Thorax clothed with brown narrow-curved scales. Legs black, banded.

♂. Head black, clothed with pale whitish narrow-curved and black upright forked scales, with white flat lateral ones; eyes deep black; antennae pale, nodes black, basal lobes black, penultimate and apical segments dark brown, plumes brown; proboscis black with a narrow creamy white band towards the apex of the middle third with a few ventral brown hairs before the base of the band; palpi black scaled, longer than the proboscis, first segment with a creamy band on its basal third, second and third segments with basal creamy banding, the latter creamy at the apex, the apical third of the first segment and remaining segments with black ventral hairs.

Thorax black, clothed with brown narrow-curved scales, with pale reflections, with a few white narrow-curved ones in front of the scutellum; prothoracic lobes prominent, clothed with brown narrow-curved scales, border bristles dark brown; metanotum black; pleurae dark brown paler towards the coxae, and clothed with white flat scales.

Abdomen clothed with black scales with broad white basal banding, first segment dark brown clothed with pale hairs, seventh and eighth segments with a small white apical patch of scales; posterior border bristles golden yellow, lateral ones brown, long; genitals black clothed with black hairs; venter white scaled, most of the segments with dark apical bands.

Legs black; femora white scaled beneath; tibiae with narrow faint apical and basal banding; hind legs with a pale knee spot; tarsals one to three with narrow pale basal banding; ungues of fore and mid legs very unequal, the larger with a single tooth, hind ungues equal and simple.

Wings with the costa black, veins clothed with brown scales, fringe brown; first fork-cell longer and narrower than the second, base of the latter nearer the base of the wing than that of the former; stem of the first fork-cell about four-fifths the length of the cell, stem of the second about five-sevenths the length of its cell; anterior basal cross-vein longer than the anterior cross-vein and about one and a half times its own length distant from it. Halteres pale.

Length 5.5 mm.

♀. Head similar to ♂; palpi black scaled, white scaled at the apex; antennae black, verticillate hairs black. Legs with the ungue equal and simple. Wings with the anterior basal cross-vein longer than the anterior cross-vein and twice its own length distant from it.

Length 6 mm.

*Habitat.* QUEENSLAND, TOWNSVILLE (14/4/13 and 6/5/13) (F. H. Taylor).

*Observations.* Described from a single ♂ and two ♀ specimens. It is close to *C. squamosa* but is easily separated from it.

*Culicada clelandi*, n. sp.

(Pl. XLI, fig. 6; XLII, fig. 7.)

Head black, clothed with creamy and brown scales. Thorax clothed with golden narrow-curved scales. Abdomen clothed with violet black scales and with basal banding. Legs unbanded.

♀. Head black, clothed with creamy yellow narrow-curved and brown upright forked scales with lateral patches of creamy flat ones; antennae black, basal lobes pale brown, clothed with brown scales, second segment pale, verticillate hairs black, pubescence pale; palpi pale, black scaled; proboscis black scaled; clypeus dark brown; eyes black and silvery.

Thorax bright chestnut brown, with three black lines terminating opposite the wing roots, clothed with golden narrow-curved scales, lateral border bristles black; scutellum pale brown, clothed with narrow-curved golden scales, posterior border bristles brown; prothoracic lobes brown, clothed with brown and creamy yellow narrow-curved scales and brown bristles; metanotum brown; pleurae dark chestnut brown, clothed with patches of creamy yellow flat and narrow-curved scales and scattered yellow bristles.

Abdomen clothed with violet black scales, first segment with pale scales and yellowish bristles, segments two to six with creamy white basal banding, seventh mostly with creamy white scales, second to seventh segments with creamy white lateral patches, posterior border bristles pale; venter white scaled.

Legs black scaled, femora white scaled beneath on basal two-thirds, femoro-tibial joint pale scaled, tarsi unbanded; ungues of fore and mid legs equal, uniserrate, hind equal and simple.

Wings with the costa black scaled, veins clothed with dark brown scales; first fork-cell longer and narrower than the second, their bases almost level; stem of the first fork-cell less than half the length of its cell, stem of the second about two-thirds the length of the cell, anterior basal cross-vein slightly more than its own



length distant from the anterior cross-vein; fringe dusky. Halteres pale.

Length 6-6.5 mm.

*Habitat.* BASS STRAITS, Flinders Island.

*Date of Capture.* 21/11/1912.

*Observations.* Described from four ♀ specimens. A species easily distinguished by the narrow-curved scales on the pleurae, thoracic markings and ungues from *C. tasmaniensis*, Strickland. We have much pleasure in dedicating this species to its discoverer.

*Culicada squamosa*, n. sp.

(Pl. XLII, fig. 8.)

Head black; thorax dark brown with mixed brown and pale narrow-curved scales with two small patches of *upright forked scales*. Abdomen with basal banding. Legs with apical and basal banding to the tarsi.

♀. Head black, clothed with creamy narrow-curved scales and creamy upright forked ones in the centre and dark brown ones on the sides, flat scales on the sides creamy, border bristles pale; eyes purple black; antennae black, basal lobes black, second segment with the basal half creamy, verticillate hairs black; palpi four jointed, third very long, fourth minute and nipple-shaped, black scaled, with the apex white, clothed with numerous black hairs; proboscis black scaled with a broad median creamy white band.

Thorax dark brown, clothed with mixed brown and pale creamy narrow-curved scales, with two small spots, one on either side of the wing roots, of elongate outstanding flat scales; scutellum yellowish brown clothed with pale narrow-curved scales posterior border bristles black; pleurae brown with white flat scales and a few brown bristles; metanotum brown.

Abdomen clothed with black scales and creamy white lateral spots, first segment clothed with black scales and numerous yellowish hairs, segments two to five with pale creamy white basal banding, segments six to eight with basal and apical pale creamy white banding; venter with the first three segments white scaled, fourth and fifth black scaled with basal white banding and a small median patch of white scales, remainder black scaled with basal white banding.

Legs black, femora and tibiae mottled with white scales, knee spot creamy yellow, fore, mid, and hind legs with the first three tarsals with basal and apical creamy yellow banding, the fourth

basally banded in the fore and mid legs, in the hind legs the fourth and fifth with basal banding. Ungues equal and simple.

Wings with the costa black scaled, remaining veins clothed with dark brown scales; first fork-cell longer and narrower than the second, their bases about level; stem of the first fork-cell about half the length of its cell, stem of the second not quite the length of its cell; anterior basal cross-vein twice its length distant from the anterior cross-vein; the anterior and supernumerary cross-veins parallel; fringe dusky. Halteres with pale stems and dusky knobs.

Length 7.5 mm.

*Habitat.* QUEENSLAND, Townsville.

*Date of Capture.* 12/4/1913 (F. H. T.).

*Observations.* Described from two specimens; easily distinguished from other species by the elongate outstanding flat scales on the thorax.

*Culicada cumpstoni*, n. sp.

(Pl. XLII, fig. 9.)

Head clothed with pale narrow-curved and upright forked scales and pale flat lateral ones. Thorax chestnut brown. Abdomen black with white lateral spots. Legs black with broad white basal bands.

♀. Head black, clothed with pale creamy narrow-curved scales and creamy and black upright forked ones with pale creamy white flat lateral ones with a border of small creamy narrow-curved scales bordering the eyes, the latter purplish black and silvery with a tuft of yellow hairs overhanging them from the centre; clypeus black; proboscis black; palpi black scaled, white scaled at the base, second segment with an apical band, apex white scaled; antennae black, verticillate hairs black, pubescence pale, basal lobes black on their inner edges and clothed with small creamy white flat scales, second segment with the basal two-thirds densely clothed with creamy white flat scales.

Thorax chestnut brown, clothed with creamy narrow-curved scales mixed with a few narrow-curved black ones, prealar bristles creamy; prothoracic lobes brown, prominent, clothed with creamy spindle-shaped and flat scales with brown hairs; scutellum brown, clothed with creamy narrow-curved scales, posterior border bristles brown with a few yellowish ones on the mid lobe behind the brown ones; metanotum pale brown; pleurae brown clothed with patches of creamy white small and large flat scales.

Abdomen clothed with flat scales, first segment clothed with white scales and black ones in the centre and yellowish hairs, second segment basally banded white, third with a distinct white basal banding, fourth and fifth segments unbanded, sixth to eighth segments mottled with pale scales, posterior and lateral border bristles pale, second to fifth segments with small white lateral spots; venter mottled with dark brown and pale scales.

Legs black, femora mottled with white scales above, beneath with the basal half white scaled, apical half mottled with white scales, knee spot ochraceous, first three tarsals of fore and mid legs with white basal banding, fourth and fifth black, first to fourth tarsi of hind legs with broad white basal banding, fifth black; unguis all equal and uniserrate.

Wings clothed with dark brown scales; fringe brown; first fork-cell longer and narrower than the second; base of the former nearer the base of the wing than that of the latter; stem of the first fork-cell about one-third the length of its cell, stem of the second scarcely half the length of the cell; anterior basal cross-vein about the same length as the anterior cross-vein and nearly twice its own length distant from it. Halteres with pale stems and dark knobs.

Length 7 mm.

*Habitat.* VICTORIA, Melbourne; TASMANIA, Underwood.

*Date of Capture.* 23/10/1912.

*Observations.* Described from a single specimen taken by Dr. Cumpston. We have also received it from Mr. F. M. Littler from Tasmania. It is somewhat closely related to *C. demansis*, Strickland.

*Culicada annulipes*, n. sp.

(Pl. XLII, figs. 10 and 11.)

Head black. Thorax clothed with golden yellow narrow-curved scales. Legs black with creamy white basal banding. Abdomen with basal banding.

♀. Head black, clothed with creamy yellow narrow-curved scales and mixed creamy and black upright forked ones, with a small patch on either side of flat black ones surrounded above and below and at the back with creamy white flat scales, eyes purple black and silvery; clypeus black; palpi clothed with mixed black and creamy white scales; antennae black, basal lobes pale, clothed with small white flat scales, second segment with the basal two-thirds creamy, clothed with black flat scales, verticillate hairs black,

pubescence pale; proboscis creamy yellow with base and apex black.

Thorax brown with two sub-median light reddish brown broad stripes on the anterior half, clothed with golden brown narrow-curved scales, mixed with a few white ones, there is a large patch of white narrow-curved scales in front of the scutellum; the latter brown, clothed with white narrow-curved scales, posterior border bristles black on the lateral lobes and yellowish brown on the mid lobe; prothoracic lobes brown, prominent, clothed with creamy narrow-curved scales above and creamy flat ones on the sides with a few dark hairs; pleurae brown, densely clothed with white flat scales and scattered pale hairs; metanotum reddish brown.

Abdomen black scaled with incomplete white, triangular, basal banding and lateral white patches, first segment clothed with grey white scales and pale hairs, the patches on segments five to seven extending the length of the segment, sixth segment with an incomplete apical band also, seventh clothed with mixed black and creamy white scales; posterior border bristles pale; venter densely clothed with white scales.

Legs purplish black with the femora mottled above with white and purplish black scales, beneath with basal half white scaled, apical half mottled with black and white scales; tibiae blue black mottled with white above and below, knee spot ochraceous, prominent; first tarsals mottled with white scales on their basal two-thirds, not so prominent on the hind legs, fore and mid legs with the first to fourth tarsals with basal creamy white banding, fifth with a basal spot, in the hind legs all the tarsi are basally banded with creamy white; unguis equal, uniserrate.

Wings with the costa violet black scaled, rest of the veins clothed with dusky brown scales; fringe dusky; first fork-cell longer and narrower than the second; stem of the first fork-cell scarcely half the length of its cell, stem of the second fork-cell two-thirds the length of the cell, base of the former nearer the base of the wing than that of the latter; anterior basal cross-vein slightly longer than the anterior cross-vein and about half its own length distant from it; sub-costal vein with a dense clothing of black scales at its base.

Length 5.5-6 mm.

*Habitat.* BASS STRAITS, Flinders Island (*Dr. J. B. Cleland*); TASMANIA, Launceston (*F. M. Littler*); VICTORIA, Melbourne (*Dr. J. H. L. Cumpston*).

*Date of Capture.* Melbourne, 23/10/1912: Flinders Island, 21/11/1912.

*Leucomyia annulata*, n. sp.

(Pl. XLII, figs. 12 and 13.)

Head clothed with creamy and black scales. Thorax clothed with white and brown narrow-curved scales. Legs black, tarsi basally banded. Abdomen with basal white banding.

♀. Head black, clothed with creamy white narrow-curved and numerous creamy upright forked scales with a patch of black upright forked ones above the creamy flat lateral ones; clypeus black; palpi black scaled with a small spot of white scales on the base of the fourth segment and with the apex white scaled; proboscis black scaled with a fairly broad white band; antennae dark brown, basal lobes creamy on their outer surface and black on their inner, the latter clothed with white flat scales, verticillate hairs black, pubescence pale; eyes purple black and silvery, border bristles black except in the centre where they are yellow.

Thorax dark brown, clothed with creamy narrow-curved scales with a brownish tinge in some lights on the anterior two-thirds, posterior third clothed with pale narrow-curved scales, the tuft of elongate flat scales white; scutellum pale brown with a basal median dark brown patch, clothed with white narrow-curved scales, posterior border bristles dark brown; metanotum dark brown; pleurae brown clothed with patches of pale creamy scales with scattered pale and black bristles.

Abdomen pale, clothed with black scales and basal white banding on segments two to eight, segments seven and eight with white apical banding also and white lateral basal spots, first segment clothed with white scales and numerous pale hairs, posterior border bristles pale, lateral ones brown, numerous; venter dark brown scaled with basal and apical white banding.

Legs black scaled; femora, tibiae and first tarsals mottled with white scales, the former with the basal two-thirds white beneath, fore femora with a subapical spot of white scales above, knees white, hind tibiae with white apical banding, first tarsals with white basal and apical banding, indistinct in the fore and mid legs, second to fourth tarsals with white basal banding, all tarsi of hind legs with white basal banding; ungues equal and simple.

Wings brown scaled; costa dark brown scaled; fringe dusky; first fork-cell longer and narrower than the second, their bases about level, stem of the former slightly less than half the length of the cell, stem of the latter about two-thirds the length of its cell; anterior basal cross-vein shorter than the anterior cross-vein and about two and a half times its own length distant from the

mid. Halteres creamy yellow with apical half of stem and knobs brown.

Length 5 mm.

♂. Similar to ♀. Palpi with first segment dark brown with a narrow creamy apical band, second segment black with basal and apical creamy banding, apical segment black with narrow basal creamy banding; with the apical half creamy clothed with creamy hairs, with black hairs on the apex of the first, the second and basal half of the third segments; proboscis black with a white band towards the apex of the middle third, with some fairly long black hairs beneath at the apex of the middle third; antennae pale, nodes dark, penultimate and apical segments brown.

Thorax with the anterior third with white narrow-curved scales and white elongate flat scales at the roots of the wings, posterior portion with dark brown narrow-curved scales; scutellum with brown narrow-curved scales. Abdomen with the lateral border bristles brown and dense; genitalia brown, clothed with brown hairs. Ungues of fore and mid legs unequal, uniserrate; hind equal and simple.

Length 5.5 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley*).

*Date of Capture.* 28/3/1913 ♀, 30/4/1913 ♂.

*Observations.* Described from a perfect ♂ and ♀. The colour of the scales on the anterior portion of the thorax in the ♀ is somewhat different to that of the ♂, but there are no other distinctions to separate the two specimens. The tuft of hair on the under surface of the ♂ proboscis in this and the following species can only be looked upon as sexual as it is not present in the ♀. It is distinguished from *L. australiensis*, Theob., by its banded proboscis, the absence of ochraceous scales on the wings, and the simple unguis of the ♀.

*Leucomyia annulirostris*, n. sp.

Head black, clothed with pale creamy white scales. Thorax brown mostly with white scales. Legs brown with basal and apical banding. Abdomen with basal and apical creamy white banding.

♂. Head black, clothed with pale creamy white narrow-curved scales and mixed creamy white brown upright forked scales with lateral patches of creamy white flat ones; eyes purple black and silvery; proboscis black scaled with a creamy white band towards the base of the apical third; hairy beneath at the base of the band; clypeus black; antennae pale, last two segments brown, basal

lobes black, nodes black, plumes brown; palpi black scaled, first segment with a narrow pale band on its apical third and a narrow apical one, second segment with a creamy basal band, apical segment with broad creamy yellow apical and narrow basal banding and clothed with greyish hairs, the apex of the first and the whole of the second segments clothed with black hairs.

Thorax brown with anterior two-thirds white scaled, posterior third with mixed brown and white scales with a few elongated outstanding pale flat scales in front of the wing roots; scutellum paler than thorax, sparsely clothed with white narrow-curved scales, and with brown ones to the mid lobe, posterior border bristles brown, twelve to the mid lobe, five to the lateral lobes; prothoracic lobes prominent, brown, clothed with pale narrow-curved scales and pale hairs; metanotum brown; pleurae dusky brown, clothed with patches of white flat scales and pale hairs.

Abdomen black scaled with white basal banding; first segment clothed with black scales and yellowish hairs, segments two to six with white basal banding, seventh with basal and apical creamy banding, in one specimen the eighth segment has the basal band forming a broad triangular patch which is connected to the apical band by a narrow stripe of creamy scales, and with a broad lateral creamy patch, eighth segment clothed with creamy scales; genitalia with the basal lobes brown, clothed with pale hairs posterior and lateral border bristles pale yellow; venter clothed with white and black scales with numerous pale yellow hairs.

Legs black scaled; femora, tibiae and first tarsals mottled with white scales, knees pale, femora pale beneath, tibiae pale at the apex; first and second tarsals with creamy basal and apical banding, third and fourth with basal banding, fifth pale scaled, first three tarsals of hind legs with creamy basal and apical banding, fourth and fifth tarsals with creamy basal banding; ungues of fore and mid legs very unequal, uniserrate, hind equal and simple.

Wings with the veins clothed with brown scales; fringe brown; first fork-cell longer and narrower than the second, their bases level; stem of the first fork-cell less than half the length of its cell, stem of the second two-thirds the length of the cell; anterior basal cross-vein longer than the anterior cross-vein and twice its own length distant from it. Halteres with pale stems and dark knobs.

Length 6 mm.

♀. Similar to ♂. Antennae brown, basal lobes dusky, clothed with white scales, second segment with the basal half creamy, verticillate hairs black, pubescence pale; nodes pale; palpi black scaled with a few black bristles, apex creamy yellow; clypeus black.

Thorax with the anterior two-thirds fawn coloured, creamy in some lights, elongate outstanding flat scales mixed pale and black, lateral border bristles black. Ungues equal and simple.

Length 7 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley* and *F. H. Taylor*); Ching Do (*F. H. Taylor*).

*Date of Capture.* 26/1/1913 (Ching Do), March and April (Townsville).

*Observations.* Described from one ♀ and several ♂ specimens. It is distinguished from *L. sinensis*, Theob., by the absence of lateral abdominal spots, larger size, etc.

*Culicelsa simplex*, n. sp.

(Pl. XLIII, figs. 14 and 15.)

Head clothed with light brown narrow-curved scales and white lateral ones. Thorax dark brown with brown narrow-curved scales. Abdomen black with basal banding and lateral basal spots. Legs brown with pale basal banding.

♀. Head dark brown, clothed with light brown narrow-curved and dark and pale upright forked scales with white lateral ones; border bristles dark brown, pale ones overhanging the eyes from the centre; eyes purplish black; antennae dark brown, basal lobes blackish, base of second segment pale; palpi black scaled, apex with a few snow white scales; proboscis black with a very broad median creamy band.

Thorax dark brown, clothed with pale golden brown narrow-curved scales; scutellum dark brown clothed with pale narrow-curved scales, border bristles dark brown; metanotum dark brown; pleurae dark brown clothed with flat white scales.

Abdomen black scaled with narrow white basal banding and lateral white basal spots; first segment clothed with numerous pale bristles, seventh with an incomplete apical white band; venter white scaled with dark brown apical bands.

Legs brown; femora with the basal half densely mottled with white scales beneath, those of the fore and mid legs with a pale apical ring, hind femora forming a pale knee joint with the tibiae; hind tibiae pale at the apex; tarsals one to three with creamy white basal banding, remainder unbanded; unguis equal and simple.

Wings with the costa black, veins densely clothed with dark brown scales; fringe brown; first fork-cell longer and narrower than the second, the base of the latter nearer the base of the wing; stem of the first fork-cell slightly more than half the length of the



cell; stem of the second as long as its cell; anterior basal cross-vein about two and a half times its length from the anterior cross-vein. Halteres with pale stems and dark knobs.

Length 4-5 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley* and *F. H. Taylor*).

*Observations.* Described from specimens collected in houses during May. It is distinguished from *C. annulirostris*, Skuse, by the much wider band on the proboscis, its brown legs and the lateral basal spots on the abdomen. It is also readily distinguished from *C. parvus*, Taylor.

*Culicelsa fuscus*, n. sp.

Head clothed with pale scales. Thorax clothed with golden narrow-curved scales. Abdomen with white basal banding. Legs unbanded.

♂. Head black, clothed with creamy white narrow-curved scales with numerous creamy white and a few brown upright forked ones, a small patch of white flat ones on each side; antennae pale, about two-thirds as long as proboscis, nodes black, penultimate and apical segments brown, basal lobes brown, plumes dense, brown; palpi longer than proboscis, second joint very long, brown scaled, apex with a few hairs on ventral surface, third and four segments dark brown scaled with numerous dark brown hairs; proboscis with the basal two-thirds pale, apical third brown; eyes purplish black.

Thorax brown, pale in front of the scutellum, clothed with golden narrow-curved scales; scutellum yellowish, clothed with pale yellowish narrow-curved scales; metanotum light brown, pleurae brown; prothoracic lobes brown.

Abdomen brown scaled with basal white banding, the first segment brown scaled with pale hairs, penultimate and apical segments clothed with creamy white scales; posterior border bristles yellow, lateral border bristles pale brown; venter white scaled.

Legs black with bronzy reflections; femora pale beneath; ungues of fore and mid legs equal, uniserrate, hind ungues small, equal and simple.

Wings with the costa dark brown scaled; veins clothed with brown scales; first fork-cell longer and narrower than the second, base of the latter scarcely nearer the base of the wing than that of the former; stem of the first fork-cell half the length of its cell, stem of the second two-thirds the length of the cell; anterior basal cross-vein longer than and about twice its own length distant from

the anterior cross-vein; fringe light brown. Halteres, stems pale with dusky knobs.

Length 3 mm.

*Habitat.* QUEENSLAND, Townsville.

*Date of Capture.* 31/3/1913 (*F. H. Taylor*).

*Observations.* Described from two ♂ specimens which were taken in water-butts on house properties. It is easily separated from its congeners by its unbanded legs, fore and mid ungues and small size.

*Culex occidentalis*, Skuse.

Proc. Linn. Soc. N.S. Wales, III, 2nd series, p. 1729 (1888); Theobald, Mon. Culicid., I, p. 419 (1901); III, p. 179 (1903).

*Additional Locality.* TASMANIA, Launceston (*F. M. Littler*).

CAENOCEPHALUS, n. g.

Head clothed with narrow-curved and upright forked scales and flat lateral ones; palpi of ♂ three-jointed, shorter than the proboscis, apical segment broadly spatulate, of ♀ apparently three-jointed, second joint longest and flattened, third minute and nipple-shaped.

Thorax clothed with small narrow-curved scales; prothoracic lobes clothed with small flat and narrow-curved scales; scutellum covered with narrow-curved scales.

Wings longer than the abdomen; veins clothed with small flat median and lateral linear scales; fork-cells short.

*Caenocephalus concolor*, n. sp.

(Pl. XLIII, figs. 16 and 17.)

Head clothed with pale narrow-curved scales and long thin brown and creamy upright forked ones with white flat ones on the sides. Thorax pale. Legs unbanded. Abdomen brown scaled with broad white basal banding and lateral basal spotting.

♂. Head dark, clothed with creamy narrow-curved and creamy and brown upright forked scales and flat lateral ones; eyes purplish black, bristles bordering them brown; antennae pale, fifteen jointed, densely plumose, the latter brown, basal lobes brown, penultimate and apical segments brown; palpi pale, first segment black scaled, swollen at the apex, second and apical segments brown scaled, the latter broadly spatulate with outstanding scales,

apex of the first segment, second and base of apical segment clothed with fairly long brown bristles; proboscis black, clypeus brown.

Thorax pale with a broad chestnut brown stripe extending to the wing roots, clothed with small black and creamy narrow-curved scales; prothoracic lobes brown, clothed with pale narrow-curved and flat scales and brown chaetae; scutellum basally pale, remainder brown, clothed with white narrow-curved scales, posterior border bristles dark brown, prealar bristles dark brown; metanotum light brown; pleurae pale, clothed with mixed creamy and brown flat scales and brown hairs.

Abdomen pale, clothed with brown scales with broad white basal banding to the segments; first segment brown, clothed with white scales and brown hairs, lateral border spots white; genitals with the basal lobes brown, densely hairy, inner margins pale, claspers pale, long, with the basal half swollen, posterior border bristles pale, lateral ones brown and dense; venter brown scaled with basal white banding.

Legs black, femora white scaled beneath, knee spots white, tibiae pale at the apex; unguis of fore and mid legs unequal the larger with two teeth, the smaller with one, hind equal and uniserrate.

Wings with the veins brown scaled; costa dark brown; fringe brown; first fork-cell longer and narrower than the second, base of the latter nearer the base of the wing than that of the former; stem of the first fork-cell slightly more than half the length of its cell, stem of the second scarcely as long as the cell; anterior basal cross-vein longer than the anterior cross-vein and twice its own length distant from it.

Length 5 mm.

♀. Similar to ♂. Head with the brown upright forked scales more numerous than in ♂; antennae dark brown, verticillate hairs short, dark brown, pubescence pale, dense, basal lobes and second segment paler; palpi clothed with dark brown scales, second segment flattened, apex pale scaled. Abdomen with the second and third segments with the white basal banding broader than in the ♂. Legs with the unguis all equal and simple.

Length 5 mm.

*Habitat.* N.S. WALES, Cronulla.

*Time of Capture.* Bred from larvae found in salt-water pools in rocks 13/11/1911 (*Mrs. J. B. Cleland*).

*Observations.* Described from specimens presented to the Institute by Dr. J. B. Cleland. It is a very distinct species, easily distinguished by the palpi and unguis of both sexes.

*Chrysoconops littleri*, n. sp.

Head clothed with pale scales. Abdomen and legs black, unbanded. Wings with brown scales.

♀. Head black, clothed with creamy yellow narrow-curved and thin yellowish brown upright forked scales with white flat lateral ones, border bristles brown with a fairly thick tuft of pale golden ones overhanging the eyes from the centre; eyes black, clypeus black; palpi black scaled with numerous black hairs; proboscis black; antennae black, verticillate hairs black, basal lobes pale yellow.

Thorax chestnut brown, clothed with pale golden narrow-curved scales, chaetae black, lateral ones densest above the roots of the wings; prothoracic lobes prominent, brown, clothed with brown narrow-curved scales and bristles; metanotum brown; scutellum brown, clothed with pale golden narrow-curved scales, mid lobe with eight black border bristles, lateral lobes with four; pleurae pale brown, clothed with scattered pale flat scales and mixed black and pale bristles.

Abdomen black, clothed with black scales with violet reflections, posterior border bristles pale golden, long, first segment densely clothed with long pale bristles; last segment densely clothed with pale golden bristles, venter apparently black scaled.

Legs black scaled, unbanded; femora pale scaled beneath; apical tarsi with pale reflections; unguis small, equal and simple.

Wings with the costa black, sub-costal and first longitudinal veins with dark brown scales, remaining vein scales light brown; first fork-cell considerably longer and narrower than the second, base of the former nearer the base of the wing than that of the latter; stem of the first fork-cell about one-fourth the length of the cell, stem of the second one-third the length of its cell; anterior and anterior basal cross-veins about the same length, the latter three times its own length distant from the former; fringe brown. Halteres pale.

Length 4.5 mm.

*Habitat.* TASMANIA, Mt. Arthur, near Launceston (*F. M. Littler*).

*Observations.* A species easily distinguished from other Australian *Chrysoconops*, its nearest ally being *C. nigra*, Theob., from Angola. We have much pleasure in dedicating it to its discoverer.

## DIXOMYIA, n. g.

Head clothed with flat scales with a broad stripe of narrow-curved and hair-like scales with broad upright fan-shaped ones with

serrated apices; palpi very short, three jointed, antennae fourteen jointed, second segment one-third longer than the third, pubescence very dense; proboscis with apex swollen.

Thorax clothed with narrow-curved scales; scutellum clothed with flat scales; prothoracic lobes clothed with flat scales.

Wings with small median flat scales and with broad asymmetrical flat ones on each side of the veins only; fork-cells small, the first narrower and much longer than the second.

♂. Unknown.

This is a very distinct genus on account of the fan-shaped scales on the head and the squamose character of the wings. Its build and palpi suggest the *Aedinae*.

*Dixomyia elegans*, n. sp.

(Pl. XLIII, fig. 19; XLIV, fig. 18.)

Head clothed with narrow-curved and flat scales with broad fan-shaped ones behind. Thorax clothed with narrow-curved scales; scutellum flat scaled. Abdomen unbanded with lateral spots. Wings with small median flat and broad asymmetrical scales on the veins. Legs with ochraceous apical and basal banding.

♀. Head black, clothed with patches of black and creamy yellow flat scales with a broad median stripe of pale narrow-curved and hair-like scales with numerous black and a few white broad fan-shaped ones with serrated apices; clypeus black; antennae black, basal lobe with small white flat scales and minute hairs, second segment one-third longer than the third, segments two to seven with pale apical rings, verticillate hairs brown, pubescence pale, dense; palpi pale, black scaled, apex pale; proboscis creamy mottled with black scales, base with a broad black band, apex swollen, black, tip creamy yellow; eyes black and silvery.

Thorax black, clothed with black narrow-curved scales with broad stripe, gradually widening towards its apex, of golden yellow ones on the anterior two-thirds, bristles dark brown to black; prothoracic lobes clothed with small white flat scales and scanty dark bristles; scutellum clothed with black flat scales with a median patch of creamy yellow ones on the mid lobe, posterior border bristles dark brown, pleurae pale creamy with patches of black, clothed with white and black flat scales, the latter towards the prothoracic lobes; metanotum black.

Abdomen clothed with black scales with coppery reflections, posterior border bristles yellowish, with white lateral spots on segments four to six; venter apparently dark scaled.

Legs black, femora white scaled beneath with a few pale scales above, knee spot pale; tibiae mottled, fore tibiae with a large creamy yellow scaled spot on the apical half; first three tarsi of the fore and mid legs with basal and apical yellowish banding, fourth with yellowish basal banding; first four tarsals of hind legs with yellowish basal and apical banding, fifth with basal banding; ungues small, equal and simple.

Wings with the costa black scaled, spinose; veins clothed with broad dark brown and pale asymmetrical lateral scales and small dark brown and pale median flat ones; first fork-cell narrower and much longer than the second, base of the former considerably nearer the base of the wing than that of the latter; stem of the first fork-cell one-fifth the length of its cell, stem of the second fork-cell about half the length of the cell; anterior basal cross-vein the same length as the anterior cross-vein and slightly more than twice its own length distant from it; fringe grey. Halteres with white stems and black knobs.

Length 4 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley*).

*Date of Capture.* 30/4/1913.

*Observations.* Described from a single specimen. It is a very distinct and easily recognisable species.

*Uranotaenia propria*, n. sp.

(Pl. XLIV, fig. 20.)

Head black with blue black and pale bluish white scales. Thorax clothed with dark brown scales. Abdomen black scaled. Legs black.

♂. Head black, clothed with deep blue black scales with pale bluish white ones bordering the eyes, the latter purplish black; proboscis black; palpi pale; antennae brown, basal lobes black, base of second segment pale; clypeus black.

Thorax dark brown, clothed with brown narrow-curved scales with a short prealar bluish white line of scales; prothoracic lobes prominent, clothed with white flat scales—bluish in some lights; scutellum brown, clothed with brown scales; pleurae brown with bluish white flat scales; metanotum dark brown.

Abdomen pale brown, clothed with black scales; venter pale.

Legs black, unbanded, first tarsals of fore legs very short—not quite half the length of the second, slightly curved, with a large dorsal, basal, protuberance which is clothed with long semi-recumbent scales which are spoon-shaped at their apices, apex of

joint also with a protuberance and clothed with fairly long scales; unguis sickle-shaped equal and simple.

Wings with costa black scaled and spinose, veins clothed with dark brown median scales and pale lateral ones; first fork-cell considerably shorter and narrower than the second; stem of the first fork-cell nearly three times the length of its cell, stem of the second a little more than twice the length of the cell; anterior basal cross-vein longer than the anterior cross-vein and twice its own length distant from it. Halteres with pale stems and black knobs.

Length 2.5 mm.

*Habitat.* QUEENSLAND, Townsville (*Dr. H. Priestley*).

*Observations.* Described from a single specimen taken in a house at night-time. It can be easily separated from other Australian species by the bluish head and thoracic scales and the peculiar tarsal joint of the fore legs.

*Uranotaenia albescens*, n. sp.

(Pl. XLIV, figs. 21 and 22.)

Head clothed with brown scales with a narrow border of pure white ones round the eyes. Thorax black, clothed with brown scales. Abdomen with the first three segments densely clothed with pure white scales. Legs blackish brown, tarsi pale.

♂. Head clothed with pale bronzy black broad flat and black upright forked scales and a narrow border of white flat ones to the eyes forming a patch on the sides of the head; eyes black; antennae with basal lobes and internodes pale, nodes black, penultimate and apical segments brown, plumes brown, very dense; palpi clothed with black scales and a few dark hairs; proboscis pale with the apex clothed with dark brown scales.

Thorax black with the anterior lateral areas brown, clothed with dull bronzy narrow-curved scales with black lateral border bristles, dense above the wings; a line of pure white flat scales on the sides in front of the wings; prothoracic lobes black, clothed with densely applied snow white flat scales and a few black bristles; pleurae brown with two patches of snow white flat scales; scutellum yellowish with the posterior half of the mid lobe dark brown, clothed with dark brown scales, posterior border bristles black, four to the mid lobe and three to the lateral lobes; metanotum brown.

Abdomen black, segments one to five clothed with dense white flat scales, the first with numerous pale yellow hairs also, segments

two to four with their lateral margins covered with coppery brown scales, fifth with coppery brown basal banding, sixth and seventh segments clothed with coppery brown scales, apical segment with a few pale scales, posterior border bristles pale yellow; venter clothed with white and creamy scales.

Legs with the femora and tibiae blackish brown above, yellowish brown beneath, first two tarsals of the fore and mid legs brown scaled, pale beneath, third, fourth and fifth creamy, tarsi one to three of hind legs brown scaled, pale beneath with the apex of the third creamy, fourth and fifth creamy; unguis of fore and mid legs unequal, hind equal, sickle-shaped.

Wings with the costa, subcostal and first longitudinal veins clothed with dark brown flat scales, rest of the veins clothed with grey scales; first fork-cell much shorter and narrower than the second, stem of the former nearly twice the length of the cell, stem of the latter about two-thirds the length of its cell; anterior basal cross-vein slightly longer than the anterior cross-vein and once and two-thirds its own length from it. Halteres with creamy stem and black knob.

Length 2 mm.

♀. Similar to ♂; antennae brown, basal half of the second segment creamy, verticillate hairs brown; palpi brown, clothed with black scales and a few dark hairs; proboscis brown; wings similar to ♂ with the median scales on the second and fifth veins brown in addition to the costa, subcostal and first longitudinal veins, the apical two-thirds of the costa is spiny in both sexes; fringe pale brown; the marginal cell is very narrow and the middle third of the second sub-marginal cell is very broad in both sexes.

Length 2.5 mm. (*vic.*)

*Habitat.* QUEENSLAND, Townsville.

*Date of Capture.* Bred from larvae 21/7/1912; adults taken 31/3/1913 (*F. H. Taylor*).

*Observations.* A very conspicuous species on account of its abdominal markings, and easily separated from *U. pygmaea*, Theob., by its abdominal markings and squamose character of the wings and legs. Adults were found in kerosene tins and water-butts during a mosquito survey of a portion of Townsville, it also breeds in clear, shallow, grassy pools of water.

#### *Larval characters.*

Length 3.5 mm. to apex of eighth segment, length of its siphon .5 mm., tapering very slightly towards its apex.



General colour of living mature larva pale yellowish brown, siphon pale yellow.

Head black, antennae black, apical spines fairly stout, dark brown, five in number, the one on inner margin stoutest; six spines on frontal angles of thorax; chaetae in two groups each group composed of six chaetae; first two abdominal segments with lateral brown chaetae—four in each group—remaining segments with lateral hexad tufts of setae; comb on eighth segment composed of eight triangular comb-scales, siphon tuft of thirteen setae; pecten scales ten in number their individual character could not be made out; at the apex of dorsal surface of ninth segment is a tuft of nine long brown setae, at its base also is a tuft of seven minute fine brown hairs; the apex of the ventral surface also bears numerous brown setae.

Full-grown specimens (in confinement) seem to feed almost exclusively at the surface and are predaceous on other larvae, although well supplied with food.

Their position when at rest is almost horizontal to the surface, in that respect resembling Anopheline larvae.

*Pupa*: Length 3 mm. Thoracic region yellowish brown.

Abdominal segments light brown. Pinnulae moderately long, tapering to a fine point, the middle third with very short spines on its outer edge.

The duration of the pupal stage varies from three to seven days, the average being four days.

Larvae collected 9/7/1912, pupae formed 17/7/1912, adults emerged 21-28/7/1912.

*Anisocheleomyia nivipes*, Theobald.

Entomologist, xxxviii, p. 52 (1905); Mon. Culicid., IV, p. 571 (1907).

♀. Similar to ♂; antennae pilose, fairly dense; the creamy white border of thoracic scales terminates about half way to the roots of the wings; scutellum with four dark brown border bristles to the mid lobe and three to each of the lateral lobes; below the dense creamy white scaled area on the pleurae is a similar area of black flat ones extending to the base of the coxae; metanotum dark brownish black. Coxae and trochanters clothed with white flat scales; last three tarsals of fore leg grey scaled, last two and apex of ante-penultimate of mid and hind legs creamy white; ungues equal and simple, those of the hind legs being shorter and straighter:

Length 2 mm. (*vix*).

*Habitat.* QUEENSLAND, Townsville.

*Date of Capture.* Bred from a pupa 26/7/1912.

*Observations.* This is the first record of the ♀ of this species. A single specimen was bred from a mixed lot of larvae consisting of *Uranotaenia albescens*, n. sp., *Nyssorhynchus annulipes* (Walker) and *Culicelsa vigilax* (Skuse).

## EXPLANATION OF PLATES.

## PLATE XLI.

FIG. 1.	<i>Stegomyia tasmaniensis</i> , Strickland.	♀ Head.
2.	„ „ „ „	♀ Wing.
3.	<i>Culicada tasmaniensis</i> , Strickland.	♀ Head.
4.	„ „ „ „	♀ Wing.
5.	„ <i>annulata</i> , n. sp. „	♀ Wing.
6.	„ <i>clelandi</i> , n. sp. „	♀ Head.

## PLATE XLII.

7.	<i>Culicada clelandi</i> , n. sp.	♀ Wing.
8.	„ <i>squamosa</i> , n. sp.	♀ Head.
9.	„ <i>cumpstoni</i> , n. sp.	♀ Wing.
10.	„ <i>annulipes</i> , n. sp.	♀ Head.
11.	„ „ „ „	♀ Wing.
12.	<i>Leucomyia annulirostris</i> , n. sp.	♂ Head.
13.	„ „ „ „	♂ Wing.

## PLATE XLIII.

14.	<i>Culicelsa simplex</i> , n. sp.	♀ Head.
15.	„ „ „ „	♀ Wing.
16.	<i>Caenocephalus concolor</i> , n. sp.	♂ Head.
17.	„ „ „ „	♀ Wing.
19.	<i>Dixomyia elegans</i> , n. sp.	♀ Wing.

## PLATE XLIV.

18.	<i>Dixomyia elegans</i> , n. sp.	♀ Head.
20.	<i>Uranotaenia propria</i> , n. sp.	♂ Fore tarsal.
21.	„ <i>albescens</i> , n. sp.	♂ Head.
22.	„ „ „ „	♀ Head.



2



3



4



5

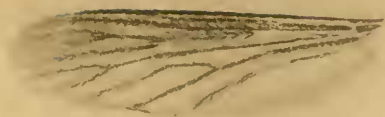


6

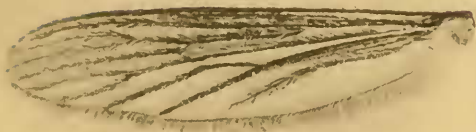
Photo, F. H. Taylor.

C. Hentschel.

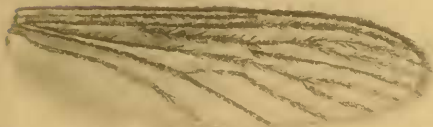
AUSTRALIAN CULICIDAE.



7



9



11



13



8



10



12

Photo, F. H. Taylor.

C. Hentschel.

AUSTRALIAN CULICIDAE.



14



15



16



17



19

*Photo, F. H. Taylor.*

*C. Hentschel.*

**AUSTRALIAN CULICIDAE.**



18



20



21



22

*Photo, F. H. Taylor.*

*C. Hentschel.*

**AUSTRALIAN CULICIDAE.**